

## **REMARKS**

Reconsideration and allowance of this Application are respectfully requested in light of the foregoing amendments and following remarks.

At the outset, Applicants want to thank Examiner Garg and Examiner Haq for the Office Interview with Applicants' conducted on August 3, 2004.

Claim 17 has been amended to clarify that classes and attributes participate in relationships.

The text of original claim 19 has been added to the specification, since it is part of the original disclosure, before line 20 of page 15, i.e., before the last paragraph on page 15. No new matter has been added by this amendment to the specification.

Claim 21 has been amended to recite a 'parametric' search engine, which is supported at least at page 9, lines 16-22 of the specification.

Claim 23 has been amended to clarify that for, a leaf class, the recited attribute relationships is a leaf class to an attribute.

Claim 25 has been amended to clarify that the recited value relationships is an attribute to a value of the attribute.

No new matter has been added by any of the foregoing claim amendments.

## **SUMMARY OF OFFICE INTERVIEW**

During the Office Interview conducted on August 3, 2004, the following topics were discussed.

1. Claims 23 and 25 respectively recite that "... said attribute relationships are between a leaf class and an attribute..." and "...said value relationships are between an attribute and a value of the attribute...". Examiner Haq clarified that he was alleging in the Office Action that no such relationship was disclosed between the recited entities and that there was disclosed only an association of the recited entities, i.e., "an association of a leaf class to an attribute" and "an association of an attribute to a value".
2. Claim 19 recites the limitation "a master database not normally accessible to said buyer ...". Applicants pointed out that there is disclosure of a master database that a buyer cannot directly search but is searched by a 'back office' on behalf of

a buyer with the search results being provided to the buyer for selection therefrom. Examiners suggested amending the language of Claim 19 to recite that the search is by a 'back office' and deleting the language "not normally accessible".

3. Applicants asserted that object oriented database technology is a tool that does not motivate modifications to a reference because one 'can' use the tool to modify the reference to achieve a limitation of Applicants' claimed invention. Examiners stated that if one 'can' use object oriented database technology to modify a reference that this is sufficient motivation to modify a reference and therefore sufficient motivation to modify the data structure of the Erickson reference. Applicants disagreed, stating that there had to be motivation in the references themselves.

Applicants also argued that it would not have been obvious to one skilled in the art to use object oriented database technology because the claimed invention as well as the cited reference is for a transaction-oriented system and long ago (in the 1970's) object oriented database technology was found wanting in performance because the transaction path is too long using such object oriented database technology. Therefore, even absent any motivation in the prior art reference to modify the data structure thereof, Applicants argued that no one ordinarily skilled in the art would use this technology either in the claimed invention or in the Erickson invention because the incorporation of this object oriented database technology would make an application much less efficient for its intended purpose.

4. Applicants pointed out that the Office Action's admission that the Erickson reference does not teach that the first database lacks a desired item and that Erickson teaches a plurality of update mechanisms to keep the first and second database synchronized. Further, Applicants asserted that Erickson explicitly teaches the second or master database is updated only by the service provider thereof from submissions of updates by buyers and suppliers to the service provider. Applicants argued that it is the service provider, and not the buyers and

suppliers, that is maintaining the second or master database and distributing updates to the local database copies thereof. Applicants further pointed out that searching the master database in addition to a local replicate by the buyers and sellers is nowhere taught by Erickson, would not only defeat the disclosed purpose of Erickson's invention, to make the accessing of data more efficient by having a local copy, but would not guarantee that the master contained any updates.

In support of their argument that Erickson does not teach accessing a second database when a first database does not contain a desired item, Applicants pointed out that Erickson teaches

"The information stored in central database 16 may be accessed through service provider 14 or, alternatively, a portion of the information in central database 16 may be copied by a buyer 10 or supplier 12 into a local database such as local database 18 or local database 20. In some embodiments, it may be preferable to distribute portions of central database 16 to various local databases, such as local database 18 or local database 20. This will allow a buyer or supplier to access desired information locally *rather than establishing contact with service provider 14 in order to access central database 16*. Such a distributed database model often gives faster access to desired information, but introduces the additional complexity of maintaining current copies of local databases in a variety of locations. However, particular buyers or suppliers may wish to assume a larger share of the maintenance responsibilities for faster access to desired information." (Col. 7, Lines 19-35; emphasis added)

In addition, Erickson teaches how local databases are maintained:

"Embodiments within the scope of this invention may comprise means for maintaining a local database. As previously explained, both buyers and suppliers may maintain local databases, such as local database 34 or local database 36 of FIG. 2. In FIG. 3A, the means for maintaining a local database is illustrated, for example, by local database maintenance processing block 60. Local database maintenance processing block 60 is responsible for maintaining local database 36. Although the details of local database maintenance processing block 60 are presented below, *in essence, local database maintenance processing block 60 is responsible for requesting updates from central database 24 and receiving update information and storing it back into local database 36*. In FIGS.

3A and 3B, such a request is illustrated by local database update request message 62. As previously explained in conjunction with FIG. 2, such a function may also be accomplished by using information request message 56. However, in the embodiment illustrated in FIG. 3, information request message 56 is illustrated for the purpose of indicating that specific information may be requested from central database 24. Local database update request message 62, on the other hand, is a general message intended to update all information in local database 36. In other words, information request message 56 may be used in FIG. 3 to request a new record from central database 24. Local database update request 62 may then be used to maintain the requested records in a current state.” (Col. 12, Lines 22-48; emphasis added)

Nowhere, Applicants assert, does Erickson teach searching a first database (local database) and then, if a desired item is not located in the first database, searching a second database (central/master). Erickson teaches a local database for the express purpose of not incurring the performance and cost penalties associated with searching a remote database and thus teaching away from searching a remote database under any circumstances.

5. Applicants pointed out that a ‘parametric’ search engine is disclosed in the specification that presents attributes associated with a specific item leaf class and valid values associated with each attribute for selection by a user. Examiners suggested and applicants agreed to amend claim 21 to limit the recited search engine to a parametric search engine, as disclosed by Applicants.

### **Claim Objections**

#### **A. Claims 22 and 23 are objected to because of informalities**

##### **Office Action Position**

The Office Action alleges that claims 22 and 23 recite limitations “said class relationships” and “said attribute relationships” for which there is insufficient antecedent basis in the claims.

##### **Applicants’ Response**

Applicants respectfully traverse.

Claim 17 (from which both claims 22 and 23 depend) recites, in pertinent part, “a second catalog database, wherein each unique catalog item stored within said second catalog is identified with respect to *class relationships, attribute relationships, and value relationships*; ...” (emphasis added). This limitation of claim 17 recites relationships among (between and to) any of class, attribute, and value and is intended to provide antecedent basis for any relationships among and between any members of the group consisting of class, attribute, and value and therefore there is antecedent basis for claims dependent from claim 17 for a relationship of a leaf class to an attribute and an attribute to a value, including claims 22 and 23. Applicants further point out that at least at page 25 lines 4 et seq. relationships among (between and to) any or all of class/attribute/value are defined as well as illustrated in FIG. 10 item 224, 222, 230, 234 and 208 and FIG. 9 items 154, 156, 158, 160, 178 and FIG. 8 items 104 (leaf class) 106, 110, 112, 132. FIG. 7A illustrates the relationships among attributes that allow a graphical comparison among attribute values that is described at least at page 11, lines 4-12. The hierarchical relationship of classes is disclosed at least at page 11, lines 19 through page 12, line 17 and the hierarchical relationship among class and values is illustrated at least in FIG. 5 for a class ‘Gases’ and value ‘Airgas specialty gases’ and value ‘Gases in Lecture Bottles’. A class has a value, a subclass has a value, and a class has a related attribute and the related attribute has a value, and finally a values have relationships as well, as shown in FIG. 7 where there are two ‘Gases in Lecture Bottles’ shown: ammonia and carbon dioxide, but having different part numbers and descriptions even though these gases all have the same attributes (image, product, description, merchant, product number, manufacturer, unit of measure and price in this example). In a given hierarchy, a Non-leaf class has attributes and values, e.g., the Gases of FIG. 5 can be further broken down as illustrated and the Thinkpads of FIG. 6 can be further broken down into ‘Notebook’, ‘Pen Notebook’ and ‘Tablet’.

## *Claim Rejections*

### **B. Claim Rejections - 35 U.S.C. §112**

1. **Claims 19, 23, and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement for containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.**

#### **1.1 Claim 19**

##### **Office Action Position**

Claim 19 is rejected under 35 U.S.C. 112, first paragraph, for reciting the negative limitation “ ... not normally accessible...”. The Office Action alleges there is no support for this limitation in the Applicants’ specification.

##### **Applicants’ Response**

Applicants respectfully traverse.

At page 15, line 6 et seq. and as illustrated in FIG. 8, the Applicants disclose how a buyer may employ a structured requisition to obtain the item the buyer is seeking from a database not normally accessible to the buyer 22. The specification discloses that not only are the classes from the catalog database 32 that have already been searched, automatically included in the structured requisition but “ ...all the classes from the master or global catalog database are also made available to the user to expedite the item location process. Additionally, attribute and even value information may be made available from the master or global catalog database... ”. Further, at page 17, line 5 et seq. it is the back office 24 and not the buyer 22 that is searching the master database and at line 9 an electronic mail message is sent to the buyer with a hyperlink to a screen containing matches and if buyer selected an item from this screen, at line 16 Applicants disclose that buyer 22 is preferably immediately reinserted back into procurement system 20 as shown at point 130, returning to point 98 of FIG.2, so that the purchase process may be completed.” Contrary to the allegation of the Office Action, Applicants assert that this disclosure is of “a master database not normally accessible to said buyer including the desired item, said special requisition being used to search for the desired item in said master database” as recited by claim 19.

Finally, claim 19 is an original claim and therefore is part of the original disclosure. Applicants have amended the specification to incorporate therein the text of claim 19 so that there is explicit support for the limitations thereof.

Therefore, the claimed subject matter of claim 19 is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention and the rejection should be withdrawn.

## **1.2 Claims 23 and 25**

### **Office Action Position**

Claim 23 and 25 are rejected under 35 U.S.C. 112, first paragraph, because these claims recite the limitations “...said attribute relationships are between a leaf class and an attribute” and “...said value relationships are between an attribute and a value of the attribute”, respectively. The Office Action alleges that there is no support for these limitations in the Applicants’ specification.

### **Applicants’ Response**

Applicants respectfully traverse.

At the outset, Applicants point out that relationships are defined between entities and that saying that ‘A is related to B’ means that ‘there is a relationship between A and B’ and one ordinarily skilled in the art of database would realize that when a claim recites that a leaf class is related to an attribute (and vice versa) that what is being recited is that there is a relationship between a leaf class and an attribute and not just ‘an association of a leaf class to an attribute’. Applicants’ assertion is supported at least at page 25 lines 4 et seq. wherein relationships among any or all of class/attribute/value are defined and which are illustrated as well in FIG. 10 item 224, 222, 230, 234 and 208 and FIG. 9 items 154, 156, 158, 160, 178 and FIG. 8 items 104 (leaf class) 106, 110, 112, 132. Further, FIG. 7A illustrates the relationships between attributes that allow a graphical comparison between attribute values that is described at least at page 11 lines 4-12. The hierarchical relationship of classes is disclosed at least at page 11, line 19 through page 12, line 17 and the hierarchical relationship among class and values is illustrated at least in FIG. 5 for a class ‘Gases’ and value ‘Airgas specialty gases’ and value ‘Gases in Lecture Bottles’. A class has a value, a subclass has a value, and a class has a related attribute and the

related attribute has a value, and, finally, values have relationships as well, as shown in FIG. 7 where there are two ‘Gases in Lecture Bottles’ shown: ammonia and carbon dioxide, but having different part numbers and descriptions even though these gases all have the same attributes (image, product, description, merchant, product number, manufacturer, unit of measure and price in this example).

A leaf class has related attributes and these attributes have related values, i.e., a relationship exists between a leaf class and its attributes and between these attributes and their values. For example, the Thinkpads of FIG. 6 can be further broken down into types (an attribute) ‘Notebook’, ‘Pen Notebook’ and ‘Tablet’. This is a relationship of ‘type’ or ‘species’ between a leaf class and an attribute that is relevant to characterizing a product for retrieval (searching the catalog to find the item). Notebooks appear somewhere else in the hierarchy of product classes as a subclass of personal computer, which is a subclass of computer, for example. The ability to capture this relationship between a leaf class (Thinkpad) and an attribute (type) is essential to being able to represent different supplier breakdowns of products. One supplier might supply only laptops while another might supply a whole range of personal computers and these two suppliers would have different catalog structures for their products.

Therefore, contrary to the allegation of the Office Action, Applicants assert that the respective limitations of claims 23 and 25 “said relationships are between a leaf class and an attribute” and “...said value relationships are between an attribute and a value of the attribute” are more than adequately supported in Applicants’ specification and the rejections should be withdrawn. The language of claims 23 and 25 has been clarified to emphasize these points.

**2.0 Claims 19, 23, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

## **2.1 Claim 19**

### **Office Action Position**

The Office Action alleges that this claim recites the limitation “...not normally accessible...” and that this is a relative limitation which renders the claim indefinite. The Examiner notes that either a database is accessible or it is not accessible to a user and that the limitation is purely subjective and not defined by the claim or the specification. Furthermore, the



Examiner alleges that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention and that for examination purposes, the Examiner assumes that the database is accessible to the user since even a database which is “not normally accessible” is at some point accessible to a user.

#### Applicants’ Response

As pointed out above with respect to the 35 U.S.C §112 first paragraph rejection of claim 19, the master database does not have to be normally accessible to the user in order for the user to make a selection from a search done on behalf of the user by the ‘back office’. Applicants again assert that this limitation is more than adequately disclosed at page 15, line 5 et seq., and as illustrated in FIG. 8, the Applicants disclose how a buyer may employ a structured requisition to obtain the item the buyer is seeking from a database not normally accessible to the buyer 22. The specification discloses that not only are the classes from the catalog database 32 that have already been searched, automatically included in the structured requisition but “ ...all the classes from the master or global catalog database are also made available to the user to expedite the item location process. Additionally, attribute and even value information may be made available from the master or global catalog database... ”. Further, at page 17, line 5 et seq. it is the back office 24 and not the buyer 22 that is searching the master database and at line 9 an electronic mail message is sent to the buyer with a hyperlink to a screen containing matches and if buyer selected an item from this screen, at line 16 Applicants disclose that buyer 22 is preferably immediately reinserted back into procurement system 20 as shown at point 130, returning to point 98 of FIG.2, so that the purchase process may be completed.” Contrary to the allegation of the Office Action, Applicants assert that this disclosure is of “a master database not normally accessible to said buyer including the desired item, said special requisition being used to search for the desired item in said master database” as recited by claim 19, wherein the searching is done on behalf of the buyer 22 by the ‘back office’.

Further, to prevent another from claiming a process that only rarely lets a buyer have access and thereby avoid infringement, Applicants have recited ‘not normally available’.

However, since claim 19 is an original claim and therefore is a part of the original disclosure, the specification has been amended to incorporate the text of claim 19 so that claim 19 is now literally supported by the specification.

For all the above reasons, the rejection is overcome and should be withdrawn.

## **2.2 Claims 23 and 25**

### **Office Action Position**

The Office Action alleges that it is unclear what is meant, respectively, by the recited limitations “...said attribute relationships are between a leaf class and an attribute” and “...said value relationships are between an attribute and a value of the attribute.” The Office Action further alleges that the specification does not provide an adequate description of these limitations.

### **Applicants’ Response**

Applicants respectfully traverse.

Applicants repeat the arguments presented for the 35 U.S.C. §112 first paragraph rejection of these claims that at least at page 25 lines 4 et seq. relationships among any or all of class/attribute/value are defined as well as illustrated in FIG. 10 item 224, 222, 230, 234 and 208 and FIG. 9 items 154, 156, 158, 160, 178 and FIG. 8 items 104 (leaf class) 106, 110, 112, 132. Further, FIG. 7A illustrates the relationships among attributes that allow a graphical comparison among attribute values that is described at least at page 11 lines 4-12. The hierarchical relationship of classes is disclosed at least at page 11 lines 19 through page 12 line 17 and the hierarchical relationship among class and values is illustrated at least in FIG. 5 for a class ‘Gases’ and value ‘Airgas specialty gases’ and value ‘Gases in Lecture Bottles’. A class has a value, a subclass has a value, and a class has a related attribute and the related attribute has a value, and, finally, values have relationships as well, as shown in FIG. 7 where there are two ‘Gases in Lecture Bottles’ shown: ammonia and carbon dioxide, but having different part numbers and descriptions even though these gases all have the same attributes (image, product, description, merchant, product number, manufacturer, unit of measure and price in this example).

A leaf class has associated, i.e., related, attributes and values. For example, the Thinkpads of FIG. 6 can be further broken down into types (an attribute) ‘Notebook’, ‘Pen Notebook’ and ‘Tablet’. This is a relationship between a leaf class and an attribute that is relevant to characterizing a product for retrieval (searching the catalog to find the item). Notebooks appear somewhere else in the hierarchy of product classes as a subclass of personal computer that is a subclass of computer, for example. The ability to capture this relationship between a leaf class

(Thinkpad) and an attribute (type) is essential to being able to represent different supplier breakdowns of products. One supplier might supply only laptops while another might supply a whole range of personal computers and these two suppliers would have different catalog structures with different attributes, i.e., different relationships between their leaf classes and attributes.

Therefore, contrary to the allegation of the Office Action, Applicants assert that the respective limitations of claims 23 and 25 “said relationships are between a leaf class and an attribute” and “...said value relationships are between an attribute and a value of the attribute” are more than adequately supported in Applicants’ specification and the rejection should be withdrawn.

**3.0 Claims 17-20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (U.S. Patent No. 6,014,644) in view of <http://www.research.ibm.com/journals/sj/361/srinivasan.html> “Object persistence in object-oriented applications” hereinafter referred to as IBM**

**Office Action Position**

With regard to claims 17 and 18, the Office Action alleges that the buyer may search the first or second database to identify suppliers that offer goods of interest to the buyer (Col. 8, lines 28-30, lines 51-67; Col. 12, lines 58 – Col. 13, line 1) and because buyers and suppliers are allowed to add data into the databases (Col. 3, lines 13-42; Col. 7, line 46-Col. 8, line 27) that it is inherent that a first database lacks a desired item in the system of Erickson. The Office Action admits that Erickson does not teach that each unique item stored within the first and second catalog databases is identified with respect to class, attribute, and value relationships but alleges that IBM teaches that Object-oriented database management systems use class, attribute, and value relationships to store and identify items within a database and that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of IBM into the system of Erickson because one would have been motivated to do so in order to avoid the impedance mismatch that exists with relational data models and databases.

Regarding claims 19 and 20, the Office Action admits that Erickson does not teach a special requisition that uses said class, attribute, and value relationships but alleges that IBM teaches Object Query Language that allows for searching a database. Further, the Office Action admits that Erickson does not teach that the databases are not updated according to said class,

attribute, and value relationships but alleges that since Erickson places no restriction on when the buyers and suppliers can add data into the database it would have been obvious to one of ordinary skill in the art at the time the invention was made to decide not to update a database.

With regard to claim 22, the Office Action admits that Erickson does not teach that the class relationships are hierarchical among classes but alleges that IBM teaches that inheritance provides for a hierarchy among classes.

With regard to claim 24, the Office Action admits that neither Erickson nor IBM teach that attributes comprise static, differentiating, and dynamic. The Office Action alleges, without providing any motivation therefor, that it would have been obvious to one of ordinary skill in the art to incorporate these features into the cited prior art. Further, the Office Action alleges that Applicants have not disclosed an advantage, use, purpose or problem solved by these attribute types. The Office Action continues, that one of ordinary skill in the art would have expected Applicants' invention to perform equally well with the teachings of the cited prior art because any item has data associated with it which describes the item uniquely and based on all the foregoing, it would have been obvious to one of ordinary skill in this art to modify the cited prior art to obtain the invention as specified in the claims.

#### Applicants Response

Applicants respectfully traverse.

Applicants point out that, as discussed above, Erickson teaches away from searching **both** databases. Each of the teachings of Erickson for locally storing a replicate of a part of a central database is directed to eliminating searching the remote central (master) database. All of Erickson's many teachings of ways for keeping the local databases in synchronization with the central database are directed to maintaining currency of local databases for the express purpose of not accessing the central database to do searching. Nowhere does Erickson teach or suggest "an item selection procedure, said procedure relying on said relationships to search for the desired item within said second database when it is not located within said first database" as recited by claim 17. In effect, Erickson teaches away from searching the central database by teaching a local copy of relevant portions of the central database and teaching keeping the local database current with the contents of the central database.

Applicants also point out that there is no teaching or suggestion of a relational database anywhere in the claimed invention or in Applicants' specification nor is there any such teaching in the cited reference, Erickson, so there would be absolutely no motivation to address a non-existent impedance mismatch therewith.

Applicants also point out that Erickson has not identified any problem with the data structure of the database taught by Erickson and there would be no motivation whatsoever to change the data structure of Erickson to the data structure of the present invention, absent the Applicants' claimed invention. The court in *in re Sang Su Lee*, 277 F.3d 1338, (Jan. 18, 2003) held that there must be some explicit motivation to modify a reference in the prior art itself and that an Applicant's invention cannot be used as a roadmap against applicant, as is being done by the Office Action in making this rejection. The court held that doing so is improper hindsight.

With further regard to claims 17 and 18, the cited combination of references does not overcome the admitted deficiencies of Erickson, namely, that Erickson does not teach that each unique item stored within the first and second catalog databases is identified with respect to class, attribute, and value relationships and with regard to claim 19 that Erickson does not teach a special requisition that uses class, attribute, and value relationships to identify the desired item. It is not sufficient that there is a tool that uses class, attribute and value relationships to store and identify items within a database to motivate combining that tool with Erickson and modifying the data structure and searching method taught therein and certainly the alleged motivation to overcome impedance mismatch between relational data models and databases does not motivate modifying Erickson to identify each unique item with respect to class, attribute, and value relationships as claimed by claims 17-19 and the rejection of claims 17-19 should be withdrawn. No problem is either identified by Erickson or is otherwise being solved by such a modification because a relational data model is not inherent in the teaching of Erickson. A simple indexed file can suffice for a storage structure of Erickson's data.

Regarding claim 20, an Object Query Language is not a special requisition and does not overcome the admitted deficiency of Erickson, namely, that Erickson does not teach a special requisition that uses class, attribute, and value relationships and the rejection of claim 20 should be withdrawn for at least this reason.

In addition, with regard to claim 20, Applicants' respectfully state that Claim 20 recites, in pertinent part "...one of said databases being updated with said desired item according to said class, attribute, and value relationships..." and nowhere does any of Applicants' claims recite not updating a database or a decision not to update a database. All that is recited is that one of said databases is updated. The point being that Erickson does not teach updating any database according to said class, attribute and value relationships because, as admitted by the Office Action, Erickson does not teach that each unique item stored within the first and second database is identified with respect to class, attribute, and value relationships and the rejection of claim 20 should be withdrawn.

Applicants' respectfully assert, with regard to claim 22, that an object inheritance hierarchy is not equivalent to the hierarchy among catalog classes, as disclosed and claimed by Applicants. An Object class as taught by the cited IBM reference, is a general construct comprising *inter alia* data definition and methods whereas a class of the claimed invention is a unique data ID describing a specific catalog category for a product, e.g., 'Gases' as a class (catalog category) having related subclasses of 'Airgas Specialty Gases' and 'Gases in Lecture Bottles'. The class of claim 22 is not a general construct for defining data and methods as taught by IBM. The Examiner is confusing a general construct, Object class, for defining data, methods and an inheritance hierarchy with data of a single type, product, arranged in a hierarchy. Applicants assert that one ordinarily skilled in the art would realize they are not the same and are not equivalent. The alleged motivation by the Office Action to incorporate the teachings of IBM into the system of Erickson, namely, to efficiently search and maintain an object-oriented database is irrelevant to motivate modifying Erickson's non-hierarchical data structure to include classes relationships that are hierarchical among classes and the rejection of claim 22 should be withdrawn. Nowhere does Erickson teach a hierarchy of catalog classes so that modifying Erickson's data structure to achieve a hierarchy would not be useful, i.e., would not make Erickson more efficient since a hierarchy has no use in the teachings of Erickson, and is therefore not motivated. Erickson only teaches identifying each product by a unique ID so that at most Erickson implies an index of these unique IDs to aid search.

Regarding claim 24, contrary to the allegation of the Office Action that Applicants have not disclosed that static, differentiating, and dynamic attributes provide an advantage, are used

for a particular purpose or solve a stated problem, Applicants have defined a Stock Keeping Unit (SKU) as a unique identifier for an item based on its differentiating attributes. The advantage of the differentiating attributes is that together they form a unique ID for an item and this is expressly defined on page 9, line 23 to page 10, line 4. Differentiating among products certainly is useful to both buyer and supplier. Applicants teach that intrinsic properties do not vary based on SKU, they do not contribute to an item's unique ID but are still used to describe characteristics of an item. Intrinsic properties are useful to both buyers and suppliers when searching for items because they provide differentiation not based on SKU. Dynamic attributes are associated with an item at buy time, e.g., such as price and quantity on hand, and keeping a price current and providing a quantity on hand certainly are useful to a buyer as well as a supplier and do not have to be disclosed since their advantages would be obvious to one ordinarily skilled in the art, e.g., to ordinary buyers and suppliers. The advantages of differentiating, dynamic, and static attributes derive from their definitions (provided in Applicants specification as explained above) and their obvious use by suppliers to describe their products and by buyers to search for and select products.

Further, Applicants assert that, contrary to the allegation of the Office Action, one of ordinary skill in the art would not expect Applicants' invention to perform equally well with the teachings of the cited prior art because only unique IDs are taught in the cited prior art and one skilled in the art would assume that there is always an advantage in having more detailed information about an item in order to make an informed purchase decision. Therefore, assuming that the additional information provided by Applicants' intrinsic and dynamic attributes is non-trivially related to a buying decision, i.e., these types of attributes are useful, and since there is no motivation in the prior art to include these useful attributes in the cited prior art, the rejection of claim 24 should be withdrawn.

Finally, Applicants assert that each of these allegations of the Office Action is impermissible hindsight, examples of using the Applicants' invention as a roadmap against Applicants. The court in *In Re Sang Su Lee*, 277 F.3d 1338, (Jan. 18, 2003) held this is impermissible hindsight and that cited references must contain a specific motivation to combine cited references and there is none here. The only problem identified in the prior art of Erickson is keeping the local databases synchronized with the central database. Modifying the data

structure of Erickson with IBM, as suggested by the Office Action, does not solve this problem. Erickson has not identified any problem with the structure of classification data taught therein and most specifically Erickson has not taught a relational database, so that overcoming an impedance mismatch therewith using IBM is also not motivated. Therefore, the Office Action has failed to make out a *prima facie* case of obviousness with regard to claims 17-20, 22, and 24 and the rejections of these claims should be withdrawn. Claims 17-20, 22, and 24 are therefore allowable.

Therefore, in view of all the above discussions, neither Erickson nor IBM, alone or in combination, can be relevant prior art for the present claimed invention, the Office Action has not established a *prima facie* case of obviousness and the rejections of claim 17-20, 22, and 24 should be withdrawn. Claim 17 is allowable and claims 18-25, dependent therefrom are allowable for at least this reason.

**4.0 Claim 21 is rejected under 35 U.S.C. 103(a) as being Unpatentable over Erickson (US Patent 6,014,644) in view of <http://www.research.ibm.com/journal/sj/361/srinivasan.html> "Object persistence in object-oriented applications" hereinafter referred to as IBM and further in view of Official Notice.**

#### Office Action Position

The Office Action admits that the cited prior art does not teach that a search engine performs the item selection procedure (i.e., database query). However, the Office Action takes Official Notice that it is old and well known in the art to use a search engine to search a database and that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate a search engine into the system of Erickson as modified by IBM to provide a user with a user-friendly interface for searching a database.

#### Applicants Response

The rejection is moot in view of the amendment of claim 21, the rejection should be withdrawn, and claim 21 is allowable.

Claim 21 also depends from allowable claim 17 and is allowable for at least this reason.

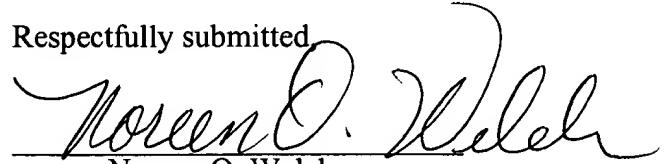


### Conclusion

In view of the foregoing remarks, all stated objections and rejections of the Office Action have been overcome and this Application is in condition for allowance. Early notice to that effect is earnestly solicited.

If any issues remain which may be best resolved through a telephone communication, the Examiner is requested to kindly telephone the undersigned at the local, Washington D.C. telephone number listed below.

Respectfully submitted,

  
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